

Mobile & Digital Connectivity in North Norfolk	
Executive Summary	This report provides a comprehensive assessment of the current state of mobile and digital connectivity across the north Norfolk district, identifying critical gaps in coverage, examining the impact on residents, businesses and visitors, and presenting evidence-based recommendations for strategic intervention.
Options considered	The Council could consider taking no further action and leave it to the mobile and digital operators to deliver without intervention.
Consultation(s)	N/A
Recommendations	It is recommended that the Overview & Scrutiny committee gives consideration to convening a dedicated scrutiny session on mobile connectivity and formally invite the four main Mobile Network Operators (MNOs) - EE, O2, Three and Vodafone - to attend. This will help the Council to better understand their investment plans and present the opportunity to work towards some agreed objectives that will improve and expedite digital connectivity within the district.
Reasons for recommendations	Concerns around poor mobile and digital connectivity have been raised by residents reporting to Members over a number of years. Moreover, MNOs suggest that there are site planning challenges in rural areas like north Norfolk and capacity constraints during peak tourism periods. It is considered that the Council seeks to take a proactive approach to addressing this matter and that the Overview & Scrutiny Committee is well placed to provide the appropriate public forum for this.
Background papers	N/A

Wards affected	All Wards
Cabinet member(s)	Cllr John Toye – Portfolio Holder for Sustainable Growth
Contact Officer	Stuart Quick, Economic Growth Manager, stuart.quick@north-norfolk.gov.uk , 01263 516263

Links to key documents:	
Corporate Plan:	Investing in our Local Economy & Infrastructure Our Greener Future Developing our Communities
Medium Term Financial Strategy (MTFS)	N/A
Council Policies & Strategies	North Norfolk Economic Strategy

Corporate Governance:

Is this a key decision	No
Has the public interest test been applied	No
Details of any previous decision(s) on this matter	N/A

1. Purpose of the Report

The objectives of this report are to:

- 1.1 Provide Members with an evidence-based overview of mobile and digital connectivity across north Norfolk, drawing on the latest empirical data including Norfolk County Council's refuse vehicle mapping project.
- 1.2 Outline the key barriers to improved connectivity including planning restrictions, technical limitations, commercial viability, and operator delivery performance against commitments.
- 1.3 Set out the strategic options for the Council to intervene as convenor, facilitator, and advocate, balancing statutory duties with opportunities for partnership working.

2. Introduction & Background

2.1 Strategic Importance of Digital Connectivity

- 2.11 Digital connectivity has become fundamental infrastructure, equivalent in importance to traditional utilities such as water, gas, and electricity. For north Norfolk, a predominantly rural and coastal district with dispersed communities and a significant visitor economy, reliable mobile and broadband connectivity is essential for:
 - **Economic Development:** Supporting local businesses, tourism operators, agricultural enterprises, and enabling remote working opportunities that can help address demographic challenges and retain younger residents.
 - **Social Inclusion:** Ensuring all residents can access digital health services, educational resources, online banking, and government services increasingly delivered through 'digital by default' approaches.
 - **Emergency Services:** Providing critical communications infrastructure for emergency response, particularly important given north Norfolk's vulnerable coastal position and dispersed rural communities. As analogue care alarm systems are phased out in favour of digital and mobile-enabled alternatives, ensuring sufficient mobile phone coverage will become increasingly critical.
 - **Public Service Delivery:** Enabling efficient delivery of council services and supporting the digital transformation of local government operations.

2.2 National Policy Framework

- 2.21 The previous Government's Digital Strategy and Levelling Up agenda explicitly recognised digital connectivity as a key enabler of economic growth and social mobility. Key national initiatives included:

- [UK Wireless Infrastructure Strategy \(2023\)](#): Sets ambitions for universal 5G coverage, improved rural connectivity, and nationwide gigabit broadband by 2030, with specific recognition of the challenges faced by rural areas.
- [Shared Rural Network \(SRN\)](#): A £1 billion public-private partnership between Government and mobile operators (EE, O2, Three, Vodafone) designed to increase geographic 4G coverage to 95% by 2025 and eliminate 'total not-spots' where no operator provides coverage by 2027.
- [Project Gigabit](#): Targets the hardest-to-reach premises with £5 billion of public investment to complement commercial fibre builds, with Norfolk designated as Lot 7 for intervention procurement.
- **Planning Reforms**: The [Telecommunications Infrastructure \(Leasehold Property\) Act 2021](#) and reforms to permitted development rights are intended to reduce barriers to infrastructure deployment while maintaining appropriate environmental safeguards.

2.22 The Government's Digital Strategy establishes clear connectivity objectives:

Coverage Targets:

- 95% UK mobile coverage with 4G by 2025.
- Elimination of 'total not-spots' by 2027 through the Shared Rural Network programme.
- Gigabit-capable broadband available to 85% of premises by 2025, 99% by 2030.
- Standalone 5G coverage in all populated areas by 2030.

2.3 Regional Context

2.31 Locally, Norfolk authorities have supported an effort to adopt innovative approaches to mapping and addressing coverage gaps. Norfolk County Council's Digital Connectivity Strategy establishes a framework for coordinated action across Norfolk, recognising the particular challenges faced by rural districts such as north Norfolk. These include:

- **Better Broadband for Norfolk (BBfN)**: Successfully improved superfast broadband availability county-wide, though rural areas continue to require targeted intervention for gigabit-capable connectivity.
- **Innovation in Monitoring**: Norfolk County Council launched a new online tool that helps residents check mobile signals in their area, using data collected from refuse collection vehicles operating on Norfolk's roads, providing unprecedented real-world coverage data.
- **Fixed Wireless Access (Starlink)**: This initiative has trialled Low Earth Orbit (LEO) satellite via Starlink technology, to reach remote and hard-to-reach communities where conventional fibre or fixed-wireless is economically unviable. These have been installed on ten village halls in Norfolk, offering free Wi-Fi to local people. Locally, Morston, Hanworth and Swanton Abbott are benefitting from this technology. The possibility of leveraging this service to install Small Cell technology that could improve local mobile phone coverage is presently being explored.

3. Current State Of Connectivity In North Norfolk

3.1 Norfolk County Council's Refuse Lorry Mapping Initiative

- 3.11 Norfolk County Council's Streetwave project has seen devices installed on refuse vehicles to gather data on signal strength and download speed, to create maps of coverage quality. This initiative provides unprecedented real-world data on mobile connectivity across Norfolk and provides the opportunity to challenge the national figures.
- 3.12 **Key Methodology:**
- Data collection covers all four major mobile network operators (EE, O2, Three, Vodafone).
 - Measurements taken during regular refuse collection routes, providing comprehensive geographic coverage.
 - Real-world signal testing that accounts for terrain, vegetation, and built environment factors.
 - Comparison between operator-claimed coverage maps and actual signal performance.
- 3.13 **Critical Findings:** Despite reports from Ofcom stating 95% of properties should receive 4G connections, the refuse lorry mapping has revealed significant discrepancies between theoretical coverage models and actual user experience, particularly affecting the most rural areas of north Norfolk.
- 3.14 The coverage data is publicly available through an interactive map at <https://app.streetwave.co/coverage-checker/norfolk-council/map>, enabling residents and businesses to check real-world coverage in their specific locations. Please see **Appendix A** for coverage maps for the four MNOs.

3.2 Identified Coverage Gaps and Problem Areas

- 3.21 Analysis through the Streetwave project has identified several critical mobile coverage gaps across north Norfolk. In particular, communities in Happisburgh, Horning, Gunthorpe, Tunstead and Neatishead have been identified as some of the worst affected by poor connectivity, with these villages frequently struggling with poor mobile coverage, creating daily inconveniences and potentially serious safety implications.
- 3.22 Areas around Norwich and Kings Lynn generally have the best signal, highlighting the urban-rural digital divide that particularly affects north Norfolk's dispersed communities.
- 3.23 The empirical evidence gathered through this mapping approach has revealed the gap between operator claims (see [Signalchecker](#) and [Ofcom](#)) and *lived experience*. This is particularly significant for north Norfolk given its:
- **Coastal Geography:** Challenging radio frequency propagation conditions along the coast.
 - **Rural Settlement Pattern:** Dispersed communities often at the edge of commercial viability for network investment.
 - **Visitor Economy:** Seasonal visitor peaks placing additional strain on network capacity.

- **Demographic Profile:** Older population, potentially more vulnerable to digital exclusion.

3.24 In addition to this mapping exercise, Norfolk residents have been invited to report any mobile coverage issues. To date over 1000 responses have been received. **Figure 1** illustrates a particularly high concentration of reports in north Norfolk, accepting that this could in part be due to the local efforts made to encourage residents to provide feedback.

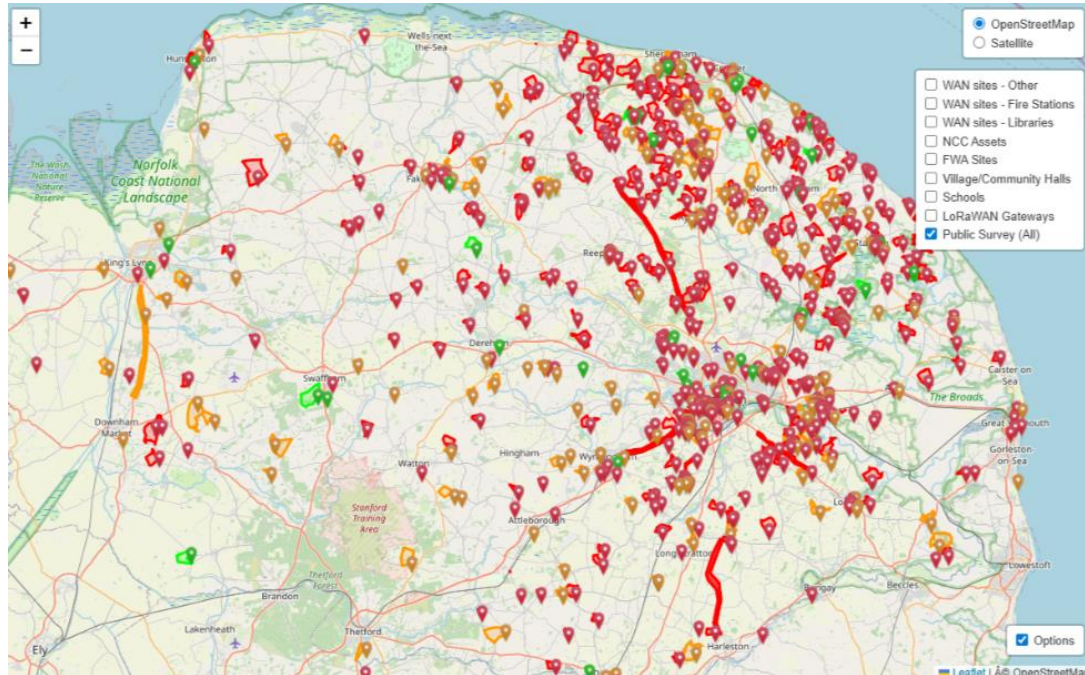


Figure 1 – Mobile Coverage Public Survey results

3.3 Broadband and Fixed Connectivity

- 3.31 **Superfast Norfolk Legacy:** The Better Broadband for Norfolk programme delivered significant improvements to fixed broadband connectivity. However, rural areas of north Norfolk continue to experience challenges with 'last mile' connectivity to properties in remote locations.
- 3.32 **Future-Proofing Requirements:** The increasing demand for gigabit-capable infrastructure to support economic development, remote working, and digital service delivery means that the previous 'superfast' standard (≥ 30 Mbps) is no longer adequate for contemporary needs.
- 3.33 **Commercial Rollout Patterns:** Full fibre deployment by commercial providers typically prioritises areas of higher population density, meaning rural north Norfolk communities often face longer wait times for upgrades without targeted intervention.

4. Planning & Infrastructure Deployment Challenges

4.1 Current Planning Framework

4.11 Mobile network infrastructure deployment in north Norfolk operates within the following planning framework:

- **National Planning Policy Framework (NPPF):** Supports high quality communications infrastructure while requiring consideration of visual impact, promoting mast sharing, and protecting designated landscapes and heritage assets.
- **General Permitted Development Order (GPDO) Part 16:** Provides permitted development rights for telecommunications installations up to specific height limits, with prior approval processes for larger installations, recent reforms having streamlined some procedures.
- **Local Planning Context:** NNDC's current and emerging Local Plan outlines that mast proposals must balance connectivity needs with environmental protection in a district with extensive Area of Outstanding Natural Beauty designation and numerous heritage assets.

4.12 5G and Satellite Services

4.13 Presently Norfolk as a whole is ranked 86 out of 96 areas for mobile coverage (see [here](#)), with Vodafone being particularly poor on 5G delivery in Norfolk (0.3% coverage). EE and Three are leading the 5G rollout, with coverage in over 100 towns and cities each (see [here](#)). EE has committed to full nationwide 5G coverage by 2028, and Three is on a similar trajectory. O2 presently covers 94 towns and cities and had aimed for 50% population coverage by 2023. No firm date for full coverage has been announced. Vodafone has 5G in 94 towns and cities. Rollout in rural areas is anticipated to be slower, likely to inevitably lag behind easier wins in more densely populated urban area and where 360 degree coverage can be achieved.

4.14 Vodafone, in partnership with AST SpaceMobile, is preparing to launch a satellite-based mobile broadband service by 2026. This service aims to provide 2G, 4G, and 5G connectivity directly to standard smartphones, especially in areas with poor terrestrial coverage (see [here](#)). These Direct-to-Device (D2D) satellite services are being supported by Ofcom, which is currently consulting on regulations to enable their use (see [here](#)). The aim is to improve coverage in remote areas and provide backup connectivity during terrestrial outages. Other MNOs may also participate in satellite-based services, but Vodafone is understood to be the most advanced in its plans.

4.2 North Norfolk Specific Challenges

4.21 Environmental Designations

- Extensive National Landscape designation across the district restricting potential development options.
- Conservation Area restrictions in historic market towns and villages
- Special Protection Areas (SPA) and Sites of Special Scientific Interest (SSSI) constraints.

- Comparatively large numbers of Listed Buildings (and their settings) requiring careful consideration of visual impact.

4.22 **Community Concerns**

- Recurring objections to telecommunications infrastructure based on visual impact grounds.
- Health-related objections to mobile masts despite robust scientific evidence of safety from Public Health England and Ofcom.
- Need for enhanced community engagement and education about the essential nature of modern telecommunications infrastructure.

4.23 **Technical and Commercial Constraints**

- Limited suitable sites in optimal locations for network coverage in rural areas
- Land ownership complications and site rental costs potentially deterring operator investment.
- Challenging radio frequency propagation conditions in coastal and rural environments.
- Seasonal capacity constraints during peak tourism periods.

4.3 **NNDC's Planning Process**

4.31 NNDC currently processes telecommunications applications as submitted, with standard consultation procedures, but undertakes limited proactive site identification or strategic facilitation.

4.32 In the last four years (1 January 2020-23 September 2025 there have been in north Norfolk:

- 15 planning applications related to telecommunication proposals **(all of which were approved)**.
- 4 prior approval applications related telecommunications proposal **(two of which were approved and two refused)**.
- 53 notification applications relating to permitted development associated with telecommunication proposals.

4.33 These statistics suggest that the Council's planning determinations are not likely to be posing a barrier to the delivery of local telecommunication infrastructure.

5. **Economic and Social Impact Assessment**

5.1 **Economic Impact of Poor Connectivity**

5.12 **Business Development Constraints**

Economic research consistently demonstrates the correlation between digital connectivity and productivity growth. Poor digital connectivity can result in:

- Limited ability for businesses to operate cloud-based systems, online booking platforms, and digital payment processing.
- Reduced competitiveness in the tourism sector where visitors increasingly expect seamless digital connectivity.
- Barriers to remote working opportunities that could help address demographic challenges and retain skilled workers.
- Constraints on agricultural businesses requiring real-time data communications e.g. for precision farming and environmental monitoring.

5.13 Visitor Economy Implications

The north Norfolk visitor economy is estimated to deliver in excess of half a billion pounds per annum to the local economy (£547.5m – Economic Impact of Tourism Report for North Norfolk 2024). Inconsistent digital connectivity can cause:

- A failure to meet visitor expectations for digital wayfinding, real-time information updates, and social media sharing.
- Transaction risks when card payment terminals and digital booking systems lack reliable connectivity.
- Competitive disadvantage versus better-connected destinations in Norfolk and neighbouring counties.

5.2 Social Impact and Digital Exclusion

5.21 The rurality of north Norfolk is such that access to essential and emergency services is often challenging, with many having to travel significant distances to access these. This issue is further exacerbated by poor digital connectivity, which in part could help to overcome some of the accessibility issues. The UK's transition from analogue to digital telephony (PSTN switch-off by 2025) means many care alarms and emergency systems now rely on internet or mobile networks. However, digital services are vulnerable to power outages, and without battery backup or mobile failover, these systems can fail completely during emergencies. In areas with poor mobile signal, residents may have no alternative communication method if landline-based digital services go down. This is especially dangerous for:

- Telecare users relying on alarms for falls or medical emergencies
- Isolated individuals with no nearby support
- Emergency responders who depend on mobile networks for coordination

5.22 Key issues include:

Access to Essential Services

- NHS digital services including eConsult, NHS App, and telemedicine requiring reliable internet connectivity.
- Online banking and financial services becoming increasingly essential for daily transactions.
- Educational resources and remote learning capabilities, which were particularly brought to the fore during the COVID-19 pandemic.
- Government services moving to 'digital by default' delivery models.

Emergency Communications

- Critical importance of mobile connectivity for contacting emergency services, particularly in remote coastal and rural areas.
- Visitor safety implications in areas popular for walking, cycling, and water sports.
- Business continuity for essential services during weather events and emergencies.

Social Connectivity and Inclusion

- Isolation experienced by residents unable to maintain digital contact with family and friends.
- Reduced access to information, entertainment, and social networks.
- Impact on young people's educational and career development opportunities.

5.3 Demographic Considerations

5.31 North Norfolk's demographic profile, with a higher proportion of older residents, creates particular vulnerabilities around digital exclusion. However, it also presents opportunities as many older residents are increasingly embracing digital technologies for:

- Health monitoring and telemedicine appointments.
- Online shopping and service access.
- Maintaining contact with family members.
- Access to information and entertainment.

6. Proposals & Options

6.1 It is proposed that the Overview & Scrutiny Committee should give consideration to formally inviting representatives from all four major mobile network operators (EE, O2, Three, Vodafone) to attend a dedicated Overview and Scrutiny Committee meeting focused on mobile connectivity in north Norfolk.

6.2 Meeting Objectives could include

- Presentation of empirical evidence regarding coverage gaps using Norfolk County Council's Streetwave mapping data & anecdotal information captured through real world experience from residents and Members.
- Seek to understand the Operator's investment plans, delivery timescales, and north Norfolk specific commitments. There is concern that when new masts do go in they are not the latest technology (i.e. 4G not 5G) and that north Norfolk continues to remain behind the technology curve.
- Discussion of barriers to infrastructure deployment and identification of collaborative solutions.
- Establishment of ongoing dialogue and accountability mechanisms with regular progress reporting.
- Exploration of partnership opportunities including site identification and planning process streamlining.

6.3 Anticipated Outcomes

- Enhanced operator engagement leading to tangible commitment to addressing identified coverage gaps with specific timescales. Focus could be agreed on the identified very worst coverage areas.
- Improved coordination between NNDC planning processes and operator deployment requirements.
- Greater transparency regarding investment plans and delivery against national programme commitments.
- Strengthened advocacy position for north Norfolk residents, businesses, and visitors.

7. Corporate Priorities

7.1 The recommendations of this report align with the following objectives of the Corporate Plan:

- **Investing in Our Local Economy & Infrastructure**
 - *An environment for business to thrive in* – dependable mobile/data is now a basic trading utility (payments, bookings, cloud), crucial across tourism, farming and SMEs.
 - *Infrastructure to support growth* – potential role for the Council through its action to act as a 'digital champion' to address local broadband/mobile disadvantages.
 - *Skills for jobs* – connectivity enables digital skills delivery, FE access, apprenticeships and remote/hybrid work options that particularly help to retain younger people.
- **Our Greener Future**
 - *Continue our journey to Net Zero* – better connectivity enables remote working and online service access, cutting travel emissions; it also supports smart energy management and precision agriculture.
 - *Protect and transition our coastal environments* – resilient mobile coverage aids emergency comms, visitor safety and coastal operations during severe weather and flood events.
- **Developing Our Communities**
 - *Engaged and supported individuals and communities* – reliable coverage lets residents access information, report issues and participate in local decision-making.
 - *Promote health, wellbeing and independence for all* – connectivity underpins NHS App/eConsult, telehealth and social support, particularly important in dispersed rural communities.
 - *Increase accessibility and inclusion for all* – tackling digital exclusion (poor signal/not-spots) improves access for older residents and harder-to-reach groups.

8. Financial and Resource Implications

8.1 There are no financial or resource implications immediately arising from this report, other than a modest amount of Officer time in contacting the Operators and coordinating the meeting.

Comments from the S151 Officer:

There are no perceived financial impacts at this time.

9. Legal Implications

- 9.1 There are no legal implications arising from this report.

Comments from the Monitoring Officer

There are no legal implications arising at this stage.

10. Risks

- 10.1 There are no identified risks arising from this report.

11. Net Zero Target

- 11.1 The Council's Net Zero Strategy & Action Plan requires all decisions to be assessed and tested for consistency against the Net Zero 2030 Strategy & Climate Action Plan. Section 2.2 of the Strategy (*Supporting Net Zero across North Norfolk*) identifies that Local Authorities are enablers of change in delivering Net Zero and have the potential to play a transformative role outside of their own operations in their districts. The Council has supported a number of initiatives over the years (eg Norfolk Warm Homes grants, Sustainable Communities Fund etc). Championing improved digital connectivity attunes with this strategy for a number of reasons as outlined within this report, least of all better digital connectivity supports remote working and with accessing online services which helps to reduce travel emissions.

12. Equality, Diversity & Inclusion (EDI)

- 12.1 The Council is committed to promoting equality of opportunity for the people and communities of north Norfolk. We respect and value difference in our communities and across our own workforce. We want everyone to feel included and able to play their part in making north Norfolk the best place to live, learn work and visit. Advocating for improved mobile and digital infrastructure helps to support the principle of digital inclusivity.

13. Community Safety issues

- 13.1 There are no identified community safety issues arising from this report.

14. Conclusion and Recommendations

- 14.1 Digital connectivity is fundamental to supporting economic growth, social inclusion, access to emergency services, and supporting public services. For north Norfolk, a predominantly rural and coastal district with dispersed communities and a significant visitor economy, reliable mobile and broadband connectivity is essential.

- 14.2 Whilst it is appreciated that, for perhaps predominantly commercial and pragmatic reasons, the roll out of digital infrastructure has been concentrated in urban and more populous areas, it should be recognised that this comes at both an economic and social cost to rural areas, such as north Norfolk, to which access to better digital infrastructure – sooner rather than later - could help to overcome logistical issues that impair access to services, employment and education.
- 14.3 NNDC has a strong precedent of working with partners to achieve more; seeking to overcome barriers to growth and ways to improve services for local residents. Where there has been concern, the Council has not been afraid to robustly challenge and seek to work collaboratively to work towards a positive outcome. To this end, it is recommended that the Overview & Scrutiny committee gives consideration to convening a dedicated scrutiny session on mobile connectivity and formally invites EE, O2, Three and Vodafone to attend. This will help the Council to better understand the MNO's investment plans and present the opportunity to explore ways in which the parties could work towards some agreed objectives that will improve and expedite digital connectivity within the district.